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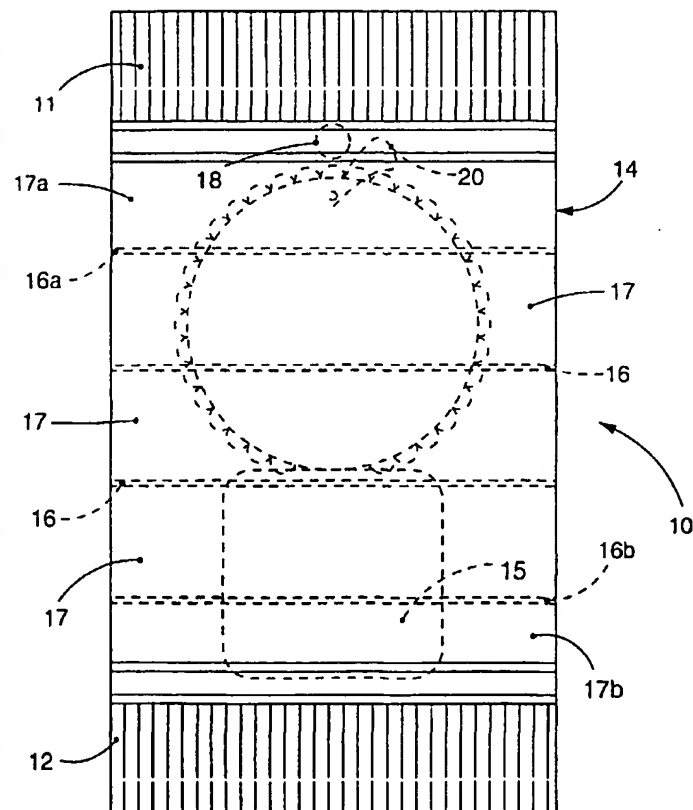
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(54) Title: **PLASTIC CASE FOR SOLID DEODORANTS**



(57) Abstract: Case (10) for solid deodorants (15) consisting of a substantially closed envelope comprising a plurality of sections (17) able to be individually and sequentially removed in order to progressively uncover different parts of the solid deodorant (15).

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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"PLASTIC CASE FOR SOLID DEODORANTS"

* * * * *

FIELD OF THE INVENTION

The invention concerns a case able to contain solid
5 deodorants, for example of the type for motor vehicles, and,
due to its configuration and how it progressively opens,
able to condition the duration and perfume level of the
deodorant itself.

BACKGROUND OF THE INVENTION

10 The state of the art includes plastic cases able to
contain solid deodorants for environments in general, and
particularly for motor vehicles. Such cases are usually
formed by an envelope of plastic material, preferentially
cellulose, generally transparent; for as long as it remains
15 closed and sealed, the envelope encloses the deodorant,
keeping the fragrance and perfume intact.

This envelope is normally closed at the upper and lower
end by welds; usually there is also a third vertical weld
which connects the two end welds. When the deodorant is
20 being used, the envelope is opened and the deodorant is
removed and placed in the environment to be perfumed, for
example inside a vehicle.

This entails the disadvantage that, in a short time, the
deodorant loses a large part of its perfume, which limits
25 the duration thereof and makes it uneconomic and ineffective
to use.

To solve this problem, the state of the art provides
various solutions. One of these provides to prepare in the
envelope a removal aperture defined by pre-cut segments. By
30 removing a section of envelope along these segments, an
aperture is formed which allows the partial removal of the
solid deodorant contained therein; then, by pulling the
deodorant little by little from the envelope, according to a

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pre-set time program (daily, weekly or otherwise), it is possible to manage the intensity of the deodorizing action and prolong its duration in substantially constant conditions.

5 This technique does not completely solve the problem, however, in that the removal of the deodorant is not very practical and effective; the deodorant can be damaged when it is partly extracted; the envelope remains attached, partly outside the deodorant, which is anti-aesthetic, and
10 can slip and fall inside the interior to be perfumed; moreover, the program according to which the deodorant is removed over time, even when it is identified on the outside of the envelope by signs or marks, is very difficult to follow and causes inaccuracies and difficulties for the
15 user. Because of these disadvantages, the user often removes the deodorant completely from the envelope without following the program of progressive use.

The present Applicant has devised and embodied this invention to overcome the shortcomings of the state of the
20 art and to obtain further advantages.

SUMMARY OF THE INVENTION

The invention is set forth and characterized in the main claim, while the dependent claims describe other innovative characteristics of the invention.

25 The main purpose of the invention is to achieve a case for solid deodorants which will be easy to use, simple to make, low cost, and which will allow to effectively program the delivery of the perfume during a period of time, prolonging the effective use of the deodorant.

30 According to the invention the case for solid deodorants comprises a containing envelope, for example comprising a plastic film welded and sealed in correspondence with its defined perimeter zones. This case comprises a plurality of

sections, reciprocally adjacent and connected by means which allow the separation and selective detachment of each of them with respect to the other sections of the envelope.

5 A first embodiment provides that the join between two adjacent sections is defined by a connecting strip associated with the film in correspondence with the zone of separation between said two sections, and arranged along a substantial part of the perimeter of the envelope. Each of the strips has a first end attached in correspondence with a
10 fixed point of the envelope, while the other end is free; by pulling the free end, the join between the two ends is removed along the travel of the strip and the section which is not constrained is detached.

When the deodorant is being used, the case is opened by
15 removing an end section of the envelope, the upper end section or the lower end section, and the deodorant is attached or hung up in the environment to be perfumed. After the period of pre-set use, when the exposed part of the deodorant has substantially exhausted its deodorizing
20 function, a section immediately adjacent is removed, exposing a new segment of deodorant to the outside, and so on, until all the sections of the envelope have been removed.

According to another embodiment, the sections are
25 constrained together by means of pre-cut segments, which can possibly be identified by zones of preferential tearing.

According to yet another embodiment, the sections are delimited by strips and pre-cut segments.

BRIEF DESCRIPTION OF THE DRAWINGS

30 These and other characteristics of the invention will be apparent from the following description of a preferential form of embodiment, given as a non-restrictive example with reference to the attached drawings wherein:

Fig. 1 is a view of one side of the case for solid deodorants according to the invention in the closed condition;

Fig. 2 is a rear view of the case in Fig. 1;

Fig. 3 shows the case in Fig. 1 with the solid deodorant
5 partly removed;

Fig. 4 shows a variant of Fig. 1.

DETAILED DESCRIPTION OF A PREFERENTIAL EMBODIMENT

With reference to the attached Figures, a case for solid deodorants 10 according to the invention is formed by a film
10 of plastic material 14 bent so as to encircle and contain a solid deodorant 15, for example of the type for the interiors of motor vehicles. At its two ends, this case 10 has two welds 11 and 12 respectively at the top and at the base; moreover, a third weld 13, perpendicular to the first
15 two, is able to clamp together the two edges, still free, of the plastic film 14. These welds 11, 12 and 13 form two surfaces, a front surface and a rear surface on which the third weld 13 lies. The front surface is provided with a circumference of preferential breakage 18, possibly covered
20 by an adhesive tongue, able to allow a hook 20 to emerge by means of which the deodorant 15 can be attached inside the environment to be perfumed.

In the embodiment shown in Figs. 1-3, this case 10 comprises a plurality of sections 17, adjacent to each other
25 and respectively connected by means of strips 16, made of more resistant plastic material than the film 14. In this case, the strips 16 are arranged parallel to each other and with respect to the welds 11 and 12 and the sections 17 are all the same size. The strips 16 are arranged along the
30 inner perimeter of the case 10 and are attached, at one end, to the third weld 13, whereas the other end is unconstrained and emerges from the case 10 so that it can easily be gripped by the user.

The case 10 as described heretofore is used as follows.

After attaching the deodorant 15 by removing the hook 20 through the hole which is formed by pressing on the circumference of preferential breakage 18, the lower end section 17b is removed (Fig. 3), by acting on the relative strip 16b, and in this way a lower segment of the solid deodorant 15 is exposed to the outside. When this lower segment has substantially completed its deodorizing action, the section immediately adjacent is removed, and so on according to the temporal program to remove the deodorant 15 or the level of perfume desired.

According to a variant, the upper end section 17a is removed first, the remaining part of the case 10 being constrained to the deodorant 15 either by means of drops of glue or by welds or otherwise.

According to the variant shown in Fig. 4, the sections 17 are defined by pre-holed segments 22, which do not allow the perfume to evaporate, to each of which an indentation of preferential tearing 21 is associated.

In the preferential embodiment of the variant shown in Fig. 4, the indentations 21 are made on the third weld 13 so that there is no passage between the inside and the outside of the case and hence no perfume evaporates.

It is obvious however that modifications and/or additions can be made to the plastic case 10 for deodorants as described heretofore without departing from the spirit and scope of the invention.

It is also obvious that, although the invention has been described with reference to specific examples, a skilled person in the art shall certainly be able to achieve many other equivalent forms of plastic case for deodorants or suchlike, all of which shall come within the field and scope of this invention.

It is also obvious that, although the invention has been described heretofore with reference to solid deodorants, it can be applied to other products which need a progressive opening, extended over time.

CLAIMS

- 1 - Case for solid deodorants (15) consisting of a substantially closed envelope, characterized in that it comprises a plurality of sections (17) able to be
5 individually and sequentially removed in order to progressively uncover different parts of the solid deodorant (15).
- 2 - Case as in claim 1, characterized in that said sections (17) are reciprocally connected by opening means.
- 10 3 - Case as in claim 2, characterized in that said opening means comprise a plurality of strips (16) arranged along at least part of the perimeter of the join zone between said adjacent sections (17).
- 4 - Case as in claim 3, characterized in that said strips
15 (16) have a first end constrained to a fixed point of the case and the other end accessible for tearing.
- 5 - Case as in claim 2, characterized in that said opening means comprise a plurality of pre-cut segments (22).
- 6 - Case as in claim 5, characterized in that each of said
20 pre-cut segments (22) is associated with a relative indentation of preferential tearing (21).
- 7 - Case as in claim 6 comprising at least a vertical weld (13), characterized in that said indentation of preferential tearing (21) is made on said vertical weld (13).
- 25 8 - Case as in any claim from 2 to 7 inclusive, characterized in that said opening means comprise the association between said strips (16) and said pre-cut segments (22).

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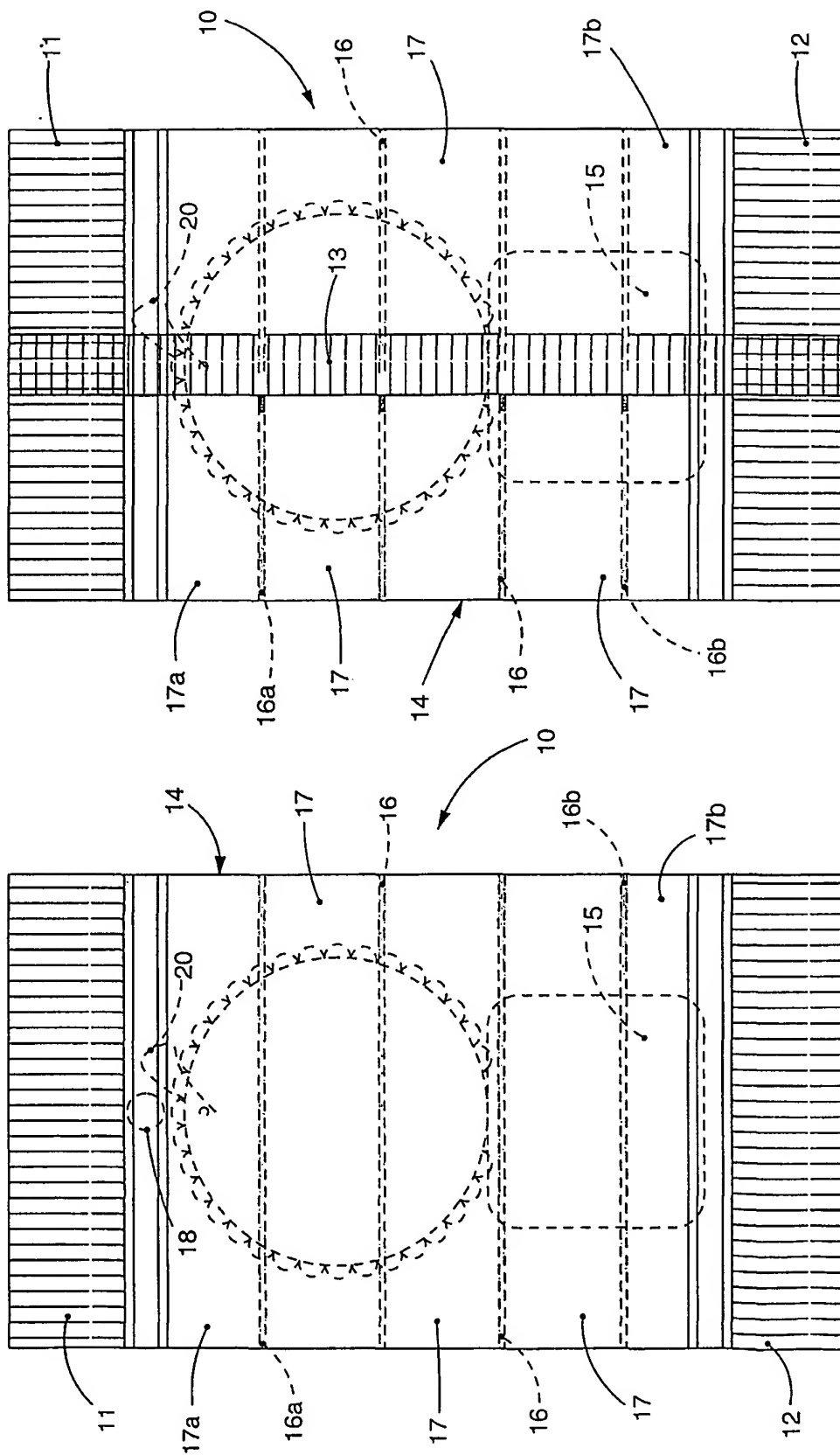


fig. 1

fig. 2

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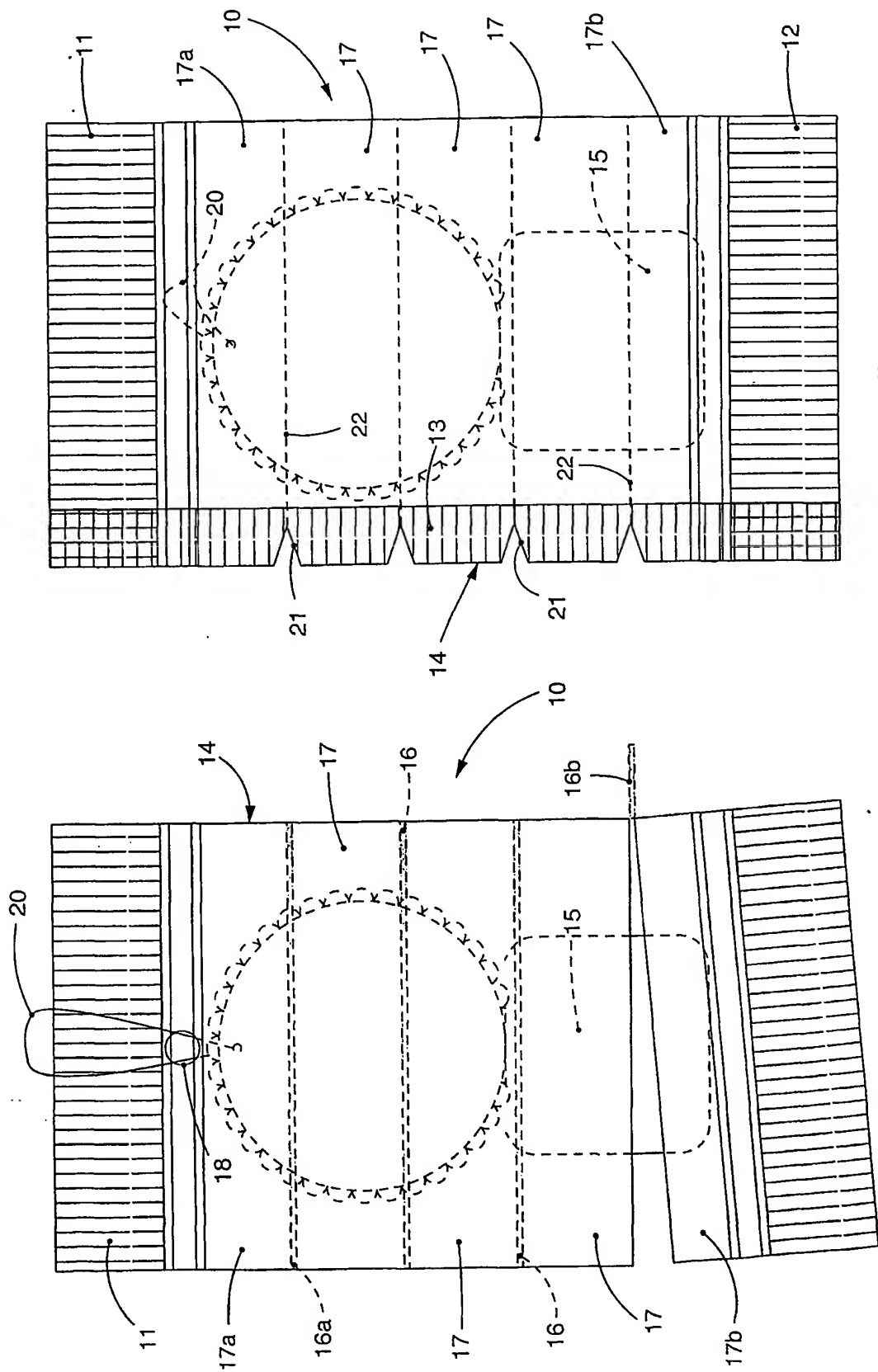


fig. 4

fig. 3

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61L9/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

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